hp calculators

HP 30S Clearing, Editing and Correcting

Resetting and Clearing Memory

Editing and Correcting the Entry Line

Practice Editing the Entry Line

This learning module describes how to reset the memory and clear data, as well as the different techniques for editing the entry line and correcting errors.

Resetting and clearing memory

Pressing ⟨2nd⟩ ⟨RESET⟩ displays the message RESET: <u>N</u> Y. Press ⟨ENTER⟩ or ⟨CL⟩ to cancel the reset operation at this point. But, if you press ► and ⟨ENTER⟩ the entire user memory is cleared and the message "MEM CLEARED" is displayed. All variables, pending operations, statistical data, the running memory and constant expression will be lost.

If the calculator does not respond to keystrokes, the reset operation described above is not possible. In such cases, try pressing the ⟨M+⟩ and ⟨CONST⟩ keys at the same time. This procedure should unlock the calculator and all settings will return to their default values. Unlike a soft reset or a warm start on the HP 49, *all* memory is cleared by the ⟨M+⟩ - ⟨CONST⟩ key combination.

Statistical data can be deleted by selecting CLR-DATA and pressing ⟨ENTER⟩ in the STAT menu (⟨MODE⟩ ⟨1⟩). All data sets will be lost.

A variable can be individually cleared by storing 0 in it. To clear all memory variables except EQN, press ⟨2nd⟩ ⟨CL-VAR⟩ (be warned, though, that no confirmation message is displayed), EQN is cleared by pressing ⟨2nd⟩ ⟨CL-EQN⟩ , and pressing ⟨MRC⟩ twice in a row (⟨MRC⟩ ⟨MRC⟩) recalls the contents of the running memory into the entry line (at the current position of the cursor), and then clears the running memory and removes the M annunciator.

Editing and correcting the entry line

The keys used to edit the entry line are the left and right arrow keys: ◄ and ► that make the blinking cursor move to the left or to the right, respectively. Holding these keys down makes the cursor move quickly. By default, the cursor is in *overwrite* mode, that is, a newly keyed in character overwrites the existing one. To set the calculator in *insert* mode, place the cursor where you wish to insert a character and press ⟨2nd⟩ ⟨INS⟩ . The calculator remains in insert mode until : ⟨2nd⟩ ⟨INS⟩ is pressed again or the ◄ and ► keys are pressed. To move the cursor to the beginning or the end of the entry line press ⟨2nd⟩ ◄ and ⟨2nd⟩ ► respectively.

The well-known ⟨2nd⟩ key is used to enter or execute a function with a gold label. The 2nd annunciator appears in the display indicating that the next key you press will be a gold key. This is the way nearly all calculators work, indeed.

There are two keys to delete characters in the entry line, namely: ⟨DEL⟩ and ⟨CL⟩ . The ⟨CL⟩ key works in two ways. If there are characters at the right of the cursor, pressing ⟨CL⟩ deletes all these characters: from the cursor position to the end of the entry line. But if there aren't any characters beyond the blinking cursor, pressing ⟨CL⟩ deletes the entire entry line, that is, all characters from the beginning to the cursor position (the end of the line).

In insert mode, to replace a character with another one, place the cursor where the character to be replaced is, next press ⟨DEL⟩ and key in the new character. If the cursor is at the end of the entry line, pressing ⟨DEL⟩ deletes the previous character. In fact, the term character does not only mean a number or a letter in this context, but also a function name.

Once ⟨ENTER⟩ has been pressed the entry line is processed and the result appears in the result line. But the expression is not lost, it's kept internally in a "history stack." Up to 320 characters from already evaluated expressions are stored in this stack, not only from the most recent expression but older expression are also stored and can be recalled by the up and down arrow keys: ▲ and ▼ . To go to the top of the history stack (i.e. the oldest entry) press ⟨2nd⟩ ▲ and to go to the bottom of the stack, press ⟨2nd⟩ ▼ and the latest entry will be displayed.

In the following examples, unless stated otherwise, assume that overwrite mode is active and that the cursor is at the beginning of the line, as if the expression had been evaluated and recovered from the history stack.

Practice editing the entry line

Example 1:   Change 89 + 65 × 2 to 99 + 65 × 2.

Solution: ⑨

Example 2:   Change 89 + 65 × 2 to 89 − 65 × 2

Solution: ▶ ▶ ⊖

Example 3:   Change 89 + 65 × 2 to 89 + 65 × 3

Solution: ②ₙd ▶ ⓄEL ③

Example 4:   Change 89 + 65 × 2 to 89 + 65 / 3

Solution: ②ₙd ▶ ⓄEL ⓄEL ÷ ③ . If the result line is present and contains the result of 89 + 65 × 2 (i.e. if ᴱᴺᵀᴱᴿ has been pressed), the following sequence is shorter: ◀◀◀ ÷ ③ .

Example 5:   Enter 30+ sin⁻¹(0.58) but, before executing it, you realized you wanted to calculate 30+ cos⁻¹(0.58) instead.

Solution: Let's key in the first expression: ③ ⓪ ⊕ ②ₙd ₛᵢₙ⁻ⁱ ⊙ ⑤ ⑧ . The ᴱᴺᵀᴱᴿ key has not yet been pressed, that is to say, the cursor is still blinking in the entry line and the result line remains blank. To replace the arcsin function with the arccos function, you need not delete all the three letters s, i, and n: it is the entire function name that is deleted/overwritten at once. Place the cursor on the arcsin function by pressing ②ₙd ◀◀◀◀ , press ⓄEL and now activate insert mode (it was automatically set by the arcsin function so that the argument can be inserted between both parentheses, but this mode was finished by the left arrow key) pressing ②ₙd ᴵᴺˢ , finally press ②ₙd cₒₛ⁻ⁱ to enter the arccos function and ⓄEL to delete the right parenthesis inserted automatically by the arccos function.

Example 6:   Correct the previous expression again, but once the expression has been evaluated.

Solution: Let's key in the expression again : ⒸL ③ ⓪ ⊕ ②ₙd ₛᵢₙ⁻ⁱ ⊙ ⑤ ⑧ and now press ᴱᴺᵀᴱᴿ . To retrieve the evaluated expression press ▲ or ▶ , the cursor is at the beginning of the entry line, so press ▶ ▶ ▶ ②ₙd ᴵᴺˢ ②ₙd cₒₛ⁻ⁱ ⓄEL ⓄEL to replace the arcsin function.